

SELECTION STATEMENT
FOR THE
MECHANICAL SYSTEMS ENGINEERING SERVICES II/A (MSES II/A)
PROCUREMENT IN SUPPORT OF
NASA'S GODDARD SPACE FLIGHT CENTER

On March 27, 2007, I, along with other senior officials from NASA Goddard Space Flight Center met with members of the Source Evaluation Board (SEB) to hear their findings based on the evaluation of proposals for the MSES II/A solicitation.

PROCUREMENT DESCRIPTION AND HISTORY

This procurement is a follow-on to NASA's Contract No. NAS5-01090, a Cost Plus Award Fee, Indefinite Delivery Indefinite Quantity (IDIQ) Contract for Mechanical Systems Engineering Services (MSES) in support of NASA's Goddard Space Flight Center (GSFC). Under this effort, the Contractor shall provide engineering services for the formulation, design, development, fabrication, integration, testing, verification, and operations of space flight and ground system hardware and software, including development and validation of new technologies to enable future space and science missions.

This requirement was issued as a small business set-aside competitive procurement for continued MSES services to be performed primarily at the Greenbelt, Maryland location. The procurement was structured in accordance with the Federal Acquisition Regulation (FAR) Part 15. The Government intended to evaluate proposals and award contract(s) without discussions with offerors. However, the Government also reserved the right to conduct discussions if the Contracting Officer later determined them to be necessary.

This competitive procurement will result in a Cost-Plus-Award-Fee (CPAF), Indefinite Delivery Indefinite Quantity (IDIQ) Contract. The contract will have an effective ordering period of 5 years from the effective date, with a separate contract vehicle for a 30 day phase-in period.

A first Draft RFP was issued June 23, 2005 for industry comments. After numerous "one-on-one" industry discussions regarding competition, which resulted in an amendment to the acquisition strategy, a second Draft RFP was issued February 01, 2006. The Final RFP was released March 09, 2006. Subsequently, three amendments followed to make changes to the solicitation: (1) Amendment One (issued March 16, 2005) scheduled a Government conducted onsite (GSFC) visit to various labs; (2) Amendment Two (issued March 20, 2006) extended the proposal due date to April 17, 2006; and (3) Amendment Three was issued (March 30, 2006) to provide information

related to recurring other direct costs (ODCs); and to revise Section J.1 in order to incorporate Attachment I "List of Installation Accountable Government Property."

Initial Proposals were due and received April 17, 2006; evaluations commenced on April 18, 2006 and were completed on June 30, 2006. A presentation to me, as the Source Selection Authority, occurred on August 22, 2006, where in consultation with NASA/GSFC senior officials I decided that it was prudent to request a revised proposal from both offerors. Discussions took place on September 8 and 11, 2006. On September 13, 2006, Amendment Four was issued to: (1) modify the Mission Suitability volume page count to allow for changes to the proposal; (2) clarify the model contract completion instructions and; (3) establish the due date of September 29, 2006 for Final Proposal Revisions. On September 21, Amendment Five was issued to: (1) provide pricing information; (2) identify "manufacturing" labor categories; and (3) extend the Final Revised Proposal due date to October 3, 2006.

Final evaluations commenced on October 4, 2006 and were completed on November 6, 2006. Two revised final proposals were submitted, by SGT, Inc. and Swales Aerospace.

On December 8, 2006, SGT was awarded the MSES II/A contract. On December 12, 2006, Swales Aerospace protested the award to SGT, Inc. On December 13, 2006, the Agency suspended performance of the contract. On January 19, 2007, the Agency took corrective action, rescinded the award, and the U.S. Government Accountability Office (GAO) dismissed the protest. The corrective action consisted of the Board conducting a review of the Mission Suitability and Past Performance findings, and a re-evaluation of the cost proposals. As a result of the review, the Mission Suitability and Past Performance findings remained unchanged. However the re-evaluation of the cost proposals revealed discrepancies between the Government Pricing Model (GPM) and Mission Suitability for both offerors. On March 14, 2007 and March 15, 2007, face-to-face discussions were conducted with both offerors regarding the GPM discrepancies. Following these discussions, on March 20, 2007, Amendment 6 of the RFP was issued to delete the GPM and utilize the existing Representative Task Order information for the cost evaluation. Since Amendment 6 deleted the GPM evaluation, and RTO cost data had already been requested, proposed and evaluated, and proposals were still valid, revised proposals were not required.

EVALUATION PROCEDURE

To aid in the evaluation, I appointed an SEB consisting of Government technical and business personnel. The SEB consisted of voting members, non-voting members, and consultants. I appointed personnel to the SEB from appropriate disciplines to provide specific expertise in identifying strengths, weaknesses, and deficiencies. The voting SEB members considered the findings of all members and consultants and used the predetermined evaluation criteria to assess the strengths and weaknesses of each proposal.

The proposals were evaluated in accordance with FAR Part 15.3, Source Selection, and NASA FAR Supplement (NFS) 1815.3, Source Selection. The RFP described three evaluation factors. The evaluation factors were Mission Suitability, Cost and Past Performance. The RFP specified the relative order of importance of the evaluation factors as follows: "The Cost Factor is significantly less important than the combined importance of the Mission Suitability Factor and the Past Performance factor. As individual factors, the Cost Factor is less important than the Mission Suitability Factor but more important than the Past Performance Factor."

Of these evaluation factors, the RFP provided that only Mission Suitability would be point scored in the evaluation process. In this regard, the RFP defined Mission Suitability as consisting of the following subfactors and assigned points to each as indicated:

Subfactor	Description	Points
A	Understanding Requirements Of Statement Of Work (SOW)	300
B	Technical Approach To Representative Task Orders (RTOs)	300
C	Management Plan	350
D	Safety and Health Plan	50
Total		1,000

The SEB adjectivally rated and point scored the proposals under each Mission Suitability Subfactor. However, the total Mission Suitability score was subject to downward adjustment based on the degree of cost realism between the proposed and probable RTO costs. The RFP provided for the evaluation, not numerical scoring, of the Cost and Past Performance factors. A cost realism analysis was also performed on the overall cost proposed for the four Representative Task Orders (RTOs). The proposed firm fixed phase-in price was evaluated for reasonableness. The SEB evaluated the Past Performance Factor for relevant current and/or completed contracts and subcontracts over \$500K in value which the companies have had within the last three years. The Past Performance Factor included the SEB's evaluation of technical, schedule and cost performance. To assist in evaluating the Past Performance factor, the RFP provided the adjectival ratings of "Excellent," "Very Good," "Good," "Fair," "Poor," or "Neutral" depending upon the assessment of each proposal in this area.

MISSION SUITABILITY EVALUATION

The SEB applied the established numerical weights and produced a final Mission Suitability score for each proposal. The significant substance of the SEB's evaluation of Mission Suitability for each proposal follows.

Swales Aerospace

Overall, the Swales proposal received a rating of "Very Good," earning a slightly higher numerical score than SGT. The overall proposal received four (4) significant strengths, eleven (11) strengths, one (1) weakness and no significant weaknesses. No adjustment to the Mission Suitability score for cost realism was required. The Swales proposal received the following rating for each individual subfactor:

Subfactor A — Understanding Requirements of SOW	Very Good
Subfactor B — Technical Approach to RTOs	Excellent
Subfactor C — Management Plan	Very Good
Subfactor D — Safety and Health Plan	Good

In the area of Understanding Requirements of the SOW, the Swales proposal received one (1) significant strength, four (4) strengths, and no weaknesses. The Swales proposal received a significant strength for an excellent, comprehensive, thorough and wide-ranging understanding of structural analysis and loads engineering in Function 2B, including the areas of finite element analysis, coupled loads analysis, stress analysis, and fracture control. The Swales proposal received a strength for presenting a strong technical approach and demonstrating a very good understanding of Function 2A, Materials Engineering, in the areas of risk mitigation, specialized training for laboratory analysts, and preparation of mission assurance requirements; and in Function 2G3, Manufacturing Engineering - Composites, conveying a thorough understanding of the manufacturing challenges of composite materials. The Swales proposal also received a strength in understanding SOW requirements for Function 4D, Research and Technology Services/Advanced Coatings and Film Technology; Function 2E, Thermal Engineering/Thermal Design and Analysis; and Function 2F, Contamination and Coatings Engineering. The Swales proposal received a strength for demonstrating a comprehensive understanding of Function 3U, Configuration Management, by conforming to NASA guidelines and procedures as well as ISO standards, and by providing for an active self audit program; and of Function 3V, Hardware Refurbishment and Reuse. The Swales proposal received a strength for a very good understanding of SOW requirements for Function 2E, Thermal Engineering, in the areas of Thermal Vacuum Test Support, Thermal Device Design and Validation, and Test Plan/Report/Documentation.

Under Technical Approach to RTOs, the Swales proposal received two (2) significant strengths, three (3) strengths, one (1) weakness and no significant weaknesses. The Swales proposal received a significant strength for demonstrating an overall excellent technical approach and understanding in addressing the mechanical engineering design and analysis tasks in RTO 1. This approach stressed the interdependence of the three subtasks, presented a comprehensive list of interface control documents required, described coupled loads analysis in detail, provided mechanical systems requirements and the associated design impact, and provided for model accuracy in the STOP

analysis. The Swales proposal received a significant strength for demonstrating an excellent understanding of the complex challenges presented by the RTO 2 task requirements. The proposal included a novel flexure design to meet requirements, identified a means for damping to meet jitter performance, recognized the importance of material selection, and recognized the complexity of cryogenic performance testing. The Swales proposal received a strength for presenting a thorough staffing plan for RTO 2 that was complete in all areas and provided the appropriate skill mix and labor hours to complete the task on schedule and within budget. The Swales proposal received a strength for insightfully providing details on tasks and process flows associated with performing contamination control on RTO 4. The proposal provided details into how the contamination control process fits into the spacecraft manufacturing process. The Swales proposal received a strength for demonstrating a very good technical approach to RTO 3 by recognizing the significant thermal design challenge, by identifying the risks and critical issues, and by proposing acceptable mitigation plans. The Swales proposal received one weakness for the staffing plan in RTO 1, which inadequately covered the skill mix requirements.

Under Management Plan, the Swales proposal received one (1) significant strength, three (3) strengths, no weakness and no significant weaknesses. The Swales proposal received one significant strength for an outstanding list of available critical facilities, equipment and software tools (critical non-personnel resources), including complete manufacturing and integration facilities, overlapping team member and government facilities (providing additional facility options for the government), and in-house developed software packages. The Swales proposal received a strength for effective processes in place in the areas of task order management and managing multiple tasks, including identifying all steps in the task order process, and a solid understanding of the Task Order Management System (TOMS). The Swales proposal received a strength for providing an effective plan in the areas of staffing, responding to critical requirements, award fee incentives, and maintaining and augmenting an on-going workforce. The Swales proposal received a strength for providing a strong rationale in support of the teaming relationship, which provided complete coverage of the SOW, nurtured successful business relationships, and for facilitating the development of small businesses.

Under Safety and Health Plan, the Swales proposal received one (1) strength and no weaknesses. The Swales proposal received one strength for a very good safety and health program in the areas of Hazard Communication, Lockout/Tagout, Electrical Training, Confined Space Entry, and Bloodborne Pathogen.

SGT. Inc.

Overall, the SGT proposal received a rating of "Very Good." The proposal earned four (4) significant strengths, eleven (11) strengths, three (3) weaknesses and no significant weaknesses. No adjustment to the Mission Suitability score for cost realism was required. The SGT proposal received the following rating for each individual subfactor:

Subfactor A — Understanding Requirements of SOW	Good
Subfactor B — Technical Approach to RTOs	Very Good
Subfactor C — Management Plan	Excellent
Subfactor D — Safety and Health Plan	Good

In the area of Understanding Requirements of SOW, the SGT proposal received six (6) strengths, and no weaknesses. The SGT proposal received a strength for a very good understanding of SOW requirements for Function 2E, Thermal Engineering, including the approach to performing thermal design and analysis using thermal software, thermal device design, cryogenic GSE, thermal vacuum test support, and risk identification and mitigation. The SGT proposal received a strength for a very good understanding of SOW requirements for Function 4A, Advanced Thermal Control Systems, including proposed techniques and technical approach to developing advanced thermal control systems. The SGT proposal received a strength for a very good understanding of fracture control under SOW Function 2B6, Structural Analysis and Loads Engineering, including the use of a fracture-critical parts list for tracking those parts through fabrication, and an accurate description of the types of fracture control analyses required for STS payloads. The SGT proposal received a strength for a very good understanding of SOW Function 3K, Software Engineering in the areas of requirements, risk recognition, software testing, and using the customer's own standard information management tools. The SGT proposal also received a strength for a very good technical understanding of Function 2D, Electromechanical Systems, in the areas of sensors, micro electro mechanical systems (MEMS), systems design and analysis, electronics and electromagnetics, and bearing tribology. The SGT proposal received a strength for a complete and well-integrated approach to GN&C Component and Hardware-Specific Tasks in Function 3I, Guidance, Navigation and Control. The proposal effectively described the design, development, and verification of GN&C components and systems, and provided insight into test and simulation validation.

Under Technical Approach to RTOs, the SGT proposal received one (1) significant strength, no strengths, three (3) weaknesses and no significant weaknesses. The SGT proposal received one significant strength for an excellent technical approach to RTO 3, for recognizing the thermal design challenges and proposing technically insightful solutions. The proposal presented a staffing plan with skill mix and labor hours that were realistic and complete. The proposal showed an excellent understanding of the challenges inherent to cooling detectors to cryogenic temperatures, and identified the risks and critical issues, as well as a mitigation plan. The SGT proposal received a weakness for a lack of understanding of creating a finite element model (FEM) for STOP (structural, thermal, optical) analysis use in RTO 1 when given a FEM created for dynamics analysis use. Rigid elements and effects on coefficient of thermal expansion during analysis at cryogenic temperatures were not discussed. The SGT proposal received a weakness for a technically complex test apparatus to measure and validate scanning mechanism system performance at 30K. The proposal did not

adequately discuss the technical challenges involved for this test, and therefore did not demonstrate a successful approach to the validation of system performance. The SGT proposal received a weakness for an inadequate staffing plan for RT02, underestimating the skill mix requirements.

Under Management Plan, the SGT proposal received three (3) significant strengths, four (4) strengths, no weaknesses and no significant weaknesses. The SGT proposal received a significant strength for exceptional commitment to developing small businesses, as demonstrated by the signing of Letters of Intent with three engineering companies to execute formal Mentor/Protégé agreements in accordance with Small Business Administration (SBA) procedures and by providing the protégés access to its large business teammates for additional educational and business opportunities. The SGT proposal received a significant strength for a well planned, comprehensive and detailed phase-in plan that provided for a smooth transition by performing an analysis of various aspects of transition, identifying challenges and risks, and providing excellent detail on how they intend to successfully transition into these areas. The SGT proposal received a significant strength for providing excellent state-of-the-art, critical facilities that are committed and available. SGT's teammates have extensive manufacturing and test facilities, laboratories, clean rooms, and other critical facilities. The team members' facilities have overlapping capabilities. The SGT proposal received a strength for a sound basis for teaming arrangements that augment their expertise and provides full coverage of the statement of work. SGT conducted a formal gap analysis to identify the specific areas in which its own capabilities required augmentation. The SGT proposal also received a strength for effective systems in place to process task orders and to manage multiple ongoing tasks. The SGT proposal received a strength for a very good, comprehensive, and detailed approach to organizing and managing its workforce in support of MSES II/A. SGT's organizational structure demonstrates a thorough understanding of the overall contract requirements. The SGT proposal received a strength for a comprehensive Mission Assurance Plan, which provided a very good discussion of various aspects of the Mission Assurance discipline.

Under Safety and Health Plan, the SGT proposal received one (1) strength and no weaknesses. The SGT proposal received one strength in the element of Work site Analysis. During the phase-in period, SGT proposed a very good plan to conduct training and certification, and to perform a formal and comprehensive assessment of assigned workspaces.

COST EVALUATION

The SEB evaluated the proposed cost for the four Representative Task Orders (RTOs) and the 30-day phase-in period to determine reasonableness and cost realism. The cost evaluation for the MSES II/A procurement was conducted in accordance with FAR 15.305(a) (1) and NFS 1815.305(a)(1)(B) and (C) and Request for Proposal (RFP) Clause M.5 - Cost Evaluation Factor.

The RFP stated that cost realism analysis would be performed on the overall cost proposed for the four Representative Task Orders (RTOs). The RFP included four RTOs to help the government understand how the offeror would carry out representative tasks associated with the SOW. They were purely hypothetical situations that were provided for technical and cost proposal purposes. The offeror was to describe its approach to implement and staff each RTO. It was to include a staffing plan and other required resources, such as facilities and equipment, travel, and materials.

In accordance with the RFP, a cost realism analysis was performed on the overall cost proposed for the four RTOs, and the cumulative cost realism analysis results were subject to a Mission Suitability point score adjustment. The adjustment was to be made based on the percentage difference between proposed and probable cumulative RTO costs excluding fee. Proposed bid rates were to be utilized in proposing costs for the RTOs. Each offeror presented reasonable cost approaches in most areas of the four RTOs, however, cost realism adjustments were made to the RTOs.

Swales had the highest total proposed and probable cost for the Representative Task Orders (RTOs) by a significant amount. Cost realism adjustments were made to the skill mix and staffing levels of the RTOs. These adjustments did not necessitate a reduction of the Mission Suitability score.

SGT had the lowest total proposed and probable cost for the RTOs. Cost realism adjustments were made to the skill mix, staffing levels, and a direct labor rate for the RTOs. These adjustments did not necessitate a reduction of the Mission Suitability score.

PAST PERFORMANCE EVALUATION

The evaluation was conducted in accordance with FAR 15.305(a)(2) and NFS 1815.305(a)(2), "Past Performance Evaluation."

Each offeror's past performance, along with that of its significant subcontractors, was evaluated based on relevance and performance of past work including technical, business, and schedule performance. Considering these areas, one of the following adjectival ratings was assigned: Excellent, Very Good, Good, Fair, Poor, or Neutral.

Swales received an overall rating of Excellent under the Past Performance Factor. Swales' outstanding performance on the MSES contract is highly relevant to MSES II/A. Also, Swales demonstrated outstanding performance on the Systems Analysis and Mission Support Contract at Langley Research Center, and very high performance on most of their other contracts. Furthermore, the past performance of Swales' team members was found relevant and was particularly strong.

SGT received an overall rating of Excellent under the Past Performance Factor. SGT demonstrated outstanding performance under the Multi-Disciplinary Engineering and

Technology Services (METS) contract, which is highly relevant to MSES II/A. In addition, the performance of SGT's team members was found relevant and of very high quality overall.

DECISION

I reviewed the SEB's revised report and attended the presentation summarizing their extensive evaluation. I first determined that the findings presented by the SEB, as documented in the record, were reasonable and valid for purposes of making selection. I then analyzed more closely the SEB's findings concerning the proposals, relative to the three evaluation factors: Mission Suitability, Cost and Past Performance. I considered their relative ranking as stated in the RFP.


During the course of the presentation, I solicited and considered the views of senior NASA/Goddard personnel who heard the presentation and who have responsibilities related to this procurement, referred to as "senior officials." I considered the report and the presentation from the SEB along with the views of senior officials in making my decision.

I accepted the Mission Suitability findings of the SEB as reflected in the presentation and final report. I noted that the Swales Aerospace proposal and the SGT proposal received the same overall Mission Suitability rating of "Very Good," but differed slightly in point scores. I noted that Swales had a slightly higher Mission Suitability point score. However, I did not note substantial differentiation in the overall technical value between the technical approaches that were offered by Swales and SGT.

I examined the proposed and probable costs for the RTOs and agree with the SEB's evaluation of the offerors' probable cost. I noted that Swales has a significantly higher proposed and probable cost compared to SGT. I also noted that the cost evaluation factor is less important than the Mission Suitability Factor, but more important than the Past Performance Factor.

Swales and SGT were each rated excellent in Past Performance. Therefore, this was not a discriminator in the selection decision.

In conclusion, based on the foregoing and considering the contents in the report and presentation of the SEB, it is my judgment that the SGT proposal is the most advantageous to the Government. Although cost was not the most significant factor in this evaluation, it was the second most significant factor and it included the most significant differentiation between the two offerors. The significantly lower probable cost offered by SGT far outweighs the slight Mission Suitability advantage proposed by Swales. Accordingly, I selected SGT for award of the Mechanical Systems Engineering Services II/A contract.


Orlando Figueroa
Source Selection Authority

March 29, 2007
Date